

AMENDMENTS TO THE CLAIMS

The following listing of Claims replaces all previous listings of Claims:

1. (Currently Amended) An intermediate frequency filter for use in an integrated circuit, comprising:
a first filter stage, the first filter stage including a first LC resonator; and
the first filter stage further including a first adjustable capacitor array ~~having a first plurality of switches coupled to the first LC resonator, wherein the first adjustable capacitor includes one or more switched capacitor blocks, each switched capacitor block having at least one capacitor coupled in series with a switch and further coupled in series with at least one other capacitor,~~ the first adjustable capacitor array having an effective capacitance value adjustable through use of the switch in each switched capacitor block, further wherein each switch is coupled to a switching line ~~first plurality of switches controlled by a first plurality of programmable data storage locations, the first plurality of programmable data storage locations~~ programmable through a serial control interface.
2. (Original) The filter of claim 1, wherein:
the first filter stage further including a second adjustable capacitor array coupled to the LC resonator, the second adjustable capacitor array having an effective capacitance value adjustable through use of a second plurality of data storage locations, the second plurality of data storage locations programmable through the serial control interface.
3. (Original) The filter of claim 2, wherein:
the data storage locations of the second plurality of data storage locations are fuses.
4. (Cancelled)
5. (Currently Amended) The filter of claim 1, wherein:
a first switched capacitor block including the first capacitive array includes a first capacitor of a first magnitude coupled in series with a first switch and further

coupled in series with a second capacitor of the first magnitude, the first switch controlled by a first switching line fuse of the first plurality of fuses; and a second switched capacitor block including the first capacitive array includes a third capacitor of a second magnitude coupled in series with a second switch and further coupled in series with a fourth capacitor of the second magnitude, the second switch controlled by a second switching line fuse of the first plurality of fuses, the combination of the third capacitor, second switch and fourth capacitor coupled in parallel with the combination of the first capacitor, first switch and second capacitor.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) A circuit formed as part of a single integrated circuit, the circuit comprising:

- a first amplifier;
- a first oscillator;
- a first mixer coupled to the first amplifier and the first oscillator;
- a second oscillator;
- a second mixer coupled to the second oscillator;
- a second amplifier coupled to the second mixer;
- a serial control module;
- an intermediate frequency filter (IF filter), the IF filter including a first filter stage, the first filter stage including a first LC resonator;
- the first filter stage further including a first adjustable capacitor array coupled to the first LC resonator, wherein the first adjustable capacitor includes one or more switched capacitor blocks, each switched capacitor block having at least one capacitor coupled in series with a switch and further coupled in series with at least one other capacitor, the first adjustable capacitor array having an effective capacitance value adjustable through use of the switch in each switched capacitor block, further wherein each switch is coupled to a switching line a first plurality of programmable data storage locations, the first plurality of programmable data storage locations programmable through the serial control module;

and wherein the second mixer is coupled to the IF filter and the IF filter is coupled to the first mixer.

9. (Currently Amended) The circuit of claim 8, wherein the first filter stage further includes: a second adjustable capacitor array coupled to the LC resonator, the second adjustable capacitor array having an effective capacitance value adjustable through use of a first plurality of data storage locations, the first plurality of data storage locations programmable through the serial control interface.
- 10-36 (Cancelled)
37. (Original) The filter of claim 1, wherein at least a capacitor of the LC resonator is part of the integrated circuit.
38. (Currently Amended) The filter of Claim 1, wherein each switch is controlled by a the first plurality of programmable data storage location that is ~~locations are~~ programmable through the ~~[[a]]~~ serial control interface of the integrated circuit.
39. (Currently Amended) The filter of Claim 38, wherein each ~~the first plurality of~~ programmable data storage location is ~~locations are~~ programmable through a set of test points on the integrated circuit.
40. (New) The filter of Claim 1, wherein each switching line is coupled to a fuse.
41. (New) The filter of Claim 1, wherein each switch comprises a transistor.
42. (New) The filter of Claim 1, wherein each specific switched capacitor block is enabled or disabled using a control signal input to the switch via the switching line of the specific switched capacitor block, and a capacitance value of the specific switched capacitor block is set using the same control signal input to the switch.